UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,362	01/25/2002	Brett P. Hollman	40256.2-US-01	2005

			EXAMINER
25764	7590	12/12/2005	AL AUBAIDI, RASHA S

FAEGRE & BENSON LLP
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MINNEAPOLIS, MN 55402

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		10/057,362	HOLLMAN ET AL.
		Examiner	Art Unit
		Rasha S. AL-Aubaidi	2642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 January 2002</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-32</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-32</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>25 January 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-3, 5, 7, 13-14, 16-20, 22 and 26-31 are rejected under 35 U.S.C. 102(b)

as being anticipated by Hluchyj et al. (US PAT # 5,402,478).

Regarding claim 1, Hluchyj teaches an automated routing system for designing a

route in a communications network through which a communication line may be

installed between a source location and a destination location as specified in a service

request for the communication line, the system comprising (this reads on the system

and method for providing the optimal path, see col. 3, lines 65-67 and col. 4, lines 57-

58): a find module identifying one or more possible capacity links within the

communication network, each capacity link representing an ability to transport data over

a predefined segment of the communication network between the source location and

the destination location (this basically reads on the optimal feasible path determination

unit finding the path, see col. 4, lines 8-13); a build module constructing a capacity

graph of the communication network depicting connectivity of each of the possible

capacity links to an adjacent possible capacity link such that one or more possible

routes are defined (see col. 7, lines 65-68 and col. 8, lines 1-10) between a source node

representing the source location (this reads on the source, see col. 8, lines 55-57) and a

destination node representing the destination location (this reads on the destination, see

col. 8, lines 55-57); and a select module applying a routing algorithm to the capacity

graph to select an optimal route from the one or more possible routes based on a

calculated cost factor for installation of the communication line into each of the possible

routes within the computer network (see col. 2, lines 60-63 and col. 10, lines 38-64).

Claims 13-14 and 26-27 are rejected for the same reasons as discussed above

with respect to claim 1.

Claim 2 recites "invoke module retrieving a route policy for the communication

line specifying routing rules based on a given service type of the service request and

bandwidth required for installation of the communication line and invoking the route

policy such that the find module identifies only possible capacity links that satisfy the

routing rules". This basically reads on constructing the path based on certain rules (see

col. 4, lines 57-63).

Claims 16 and 28 are rejected for the same reasons as discussed above with

respect to claim 2.

Claim 3 recites "a route available test module testing whether the optimal route is

available for use by the communication line". Hluchyj teaches that the determination unit

besides determining the feasible path also sends the signal to the network unit, which

causes implementing the feasible path (see col. 4, lines 8-13).

Claim 20 is rejected for the same reasons as discussed above with respect to

claim 3.

Claim 5 recites "the select module re-applies the routing algorithm to the capacity

graph to select a subsequent optimal route if the route available test module determines

that the optimal route is not available for use by the communication line (this basically

reads on using an alternative route if the designated route not available, see col. 7, lines

60-66).

Claim 22 is rejected for the same reasons as discussed above with respect to

claim 5.

Claim 7 recites "the calculated cost factor for each of the possible routes is

determined based on a total distance of the predefined segments covered by the

capacity links defining each possible route". See Hluchyj col. 10, lines 38-46.

Claims 17 and 29, recite "the selecting act comprises: selecting a source network

element for connecting the source node to a first customer demarcation located at the

source location; and selecting a destination network element for connecting the

destination node to a second customer demarcation located at the destination location".

See col. 6, lines 52-60.

Claims 18 and 30 recite "testing whether the source network element contains an

incoming egress port for connecting to the first customer demarcation; and testing

whether the destination network element contains an outgoing egress port for

connecting to the second customer demarcation". This is inherent because testing the

outlets at the customer demarcation is a necessary step that must be applied in order to

ensure the communication line is functioning properly.

Claims 19 and 31 are rejected for the same reasons as discussed above with

respect to claims 18 and 30.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

4.   Claims 4, 6, 8-12, 15, 21, 23, 25 and 32 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Hluchyj et al. (US PAT # 5,402,478).

Regarding claims 4 and 21, Hluchyj does not specifically teach the use of a

submit module submitting the optimal route to a command and control engine for

instillation of the communication line.

However, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to have submit the optimal route to a submitting unit or any

similar device, which will be in charge of having the optimal route implemented and

works properly as its originally designed. Examiner takes official notice that submitting

an optimal route to a submitting unit in order to implement the communication line is old

and well known in the art.

Regarding claims 6 and 23, Hluchyj does not specifically teach "when the optimal

route found not available for use by the communication line is eliminated as the one or

more possible routes defined by the capacity graph". However, in Fig. 2, Hluchyj

teaches if the optimal feasible path is unavailable then implements a Fallback strategy

at step 206 and blocking where Fallback routing unavailable (see col. 8, lines 66-68 and

col. 9, lines 1-4). Thus, applying the blocking feature when the optimal feasible path

unavailable reads on eliminating an optimal route when it is not available.

Regarding claims 9 and 15, Hluchyj does not specifically teach that "the routing

algorithm is Dijkstra's algorithm". However, Hluchyj teaches the use of an algorithm in

order to select and implement the optimal route/path. Thus, obviously one can choose

any type of algorithm that can lead to the same end result of finding, selecting and

implementing the optimal feasible route/path.

Claim 8 recites "the service request specifies intermediate locations through

which the communication line must pass between the source location and the

destination location, the system further comprising: a define module defining an

intermediate node corresponding to each intermediate location such that the find

module identifies only possible capacity links that may be joined between adjacent

intermediate nodes, a first intermediate node and the source node and a final

intermediate node and the destination node". Hluchyj does not specifically teach that the

service request specifies intermediate locations through which the communication line

must pass between the source location and the destination location. However, this is

obvious since any path/route can pass through multiple nodes while traveling from the

source location to the destination location. Advantages of having intermediate nodes

are well known in the art.

Claims 25 and 32 are rejected for the same reasons as discussed above with

respect to claim 8.

Regarding claims 10, 11 and 12, Hluchyj does not specifically teach the

communication line is a private line circuit, an unprotected private line circuit, and a

wavelength circuit. However, one can choose/request any kind of line circuit based on

the need of the user/customer.

Conclusion

.5.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Becker (US PAT # 5,680,448) teaches an algorithm tests the allocation of an

incoming call to each of the X-location and selects the appropriate location (see

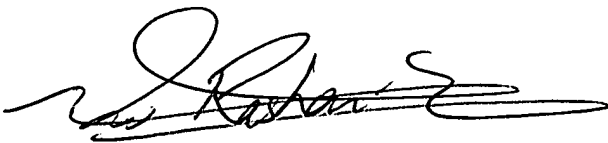abstract, col. 3, lines 9-23 and col. 4, lines 1-11).

Kobayashi et al. (US PAT # 5,337,352) teach a private branch exchange system

having an automatic optimal route selecting mechanism (see abstract and 2, lines 53-

66).

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rasha S AL-Aubaidi whose telephone number is (571) 272-7481. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar, can be reached on (571) 272-7488.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for · published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner
Rasha S. Al-Aubaidi
Art Unit 2642
12/08/2005